REMARKS

Claims 1-13 and 17-28 are pending in this application. Applicant gratefully acknowledges the Examiner's indication that Claims 20-28 are allowed and that Claims 3-5, 8-13 and 19 are allowable if rewritten to include all of the limitations of the base claim and any intervening claims. Applicant has amended Claims 3-5, 8-13, and 19 to independent form. Applicant has amended Claims 10, 17, 23 and 25 to correct a minor typographical error. In addition, Applicant has amended the specification to include section headings and an abstract. Applicant respectfully requests reconsideration and reexamination of the pending claims.

Claim Rejections – 35 U.S.C. § 102

Claims 1-2, 5-7 and 17-18 are rejected as being anticipated by U.S. Patent No. 5,444,493 ("Boie").

Boie discloses a method and apparatus for providing adaptive interpolation. Boie teaches a method whereby a line in a field is created from the weighted average of the two adjacent lines in that same field, and the main part of the document is concerned with how to derive the two weightings, α and β. The two interpolation coefficients are determined in dependence upon intra-field differences in preceding and succeeding fields.

Certain embodiments of the invention, on the other hand, are directed to methods of analyzing motion or differences between fields. A field difference signal (e.g., an inter-field difference) is distinct from an intra-field difference.

Attention will now be directed to the specific grounds for rejection provided in section 4 of the Examiner's communication.

With respect to independent Claim 1, the Examiner indicates that Boie discloses "subtracting the signals to provide a field difference signal," stating that the gradient will generate the difference signal. It is respectfully submitted that the claimed field difference signal and the gradients referred to in Boie are fundamentally different.

Boie refers to gradients being calculated from the input signal. As stated in Col. 3 of Boie, lines 60-66, each gradient is calculated from values within a single field. This is clearly shown in Figures 2B and 3B which show respectively the preceding and succeeding field. The values 1 and 2 are differences of pixel values from the same field. The value 3 is similarly derived from pixel values from a single (the current) field.

Claim 1, in contrast, requires signals for each of two adjacent fields to be produced, and for those signals to be subtracted to provide a field difference signal. Thus, values from different fields are subtracted. Nowhere in Boie is there disclosed the subtraction of two signals from adjacent fields to provide a field difference signal, as required by Claim 1.

The Examiner further indicates that Boie discloses "removing a component in the field difference signal which arises from vertical detail." Applicant respectfully disagrees. The "correction" disclosed in Boie is simply to set the values of either of 1 and 2 to zero if they differ in sign to 3. This simple 'on/off' operation is not the same as the subtraction of a component as claimed in Claim 1.

For at least the reasons noted above, Boie does not teach or suggest the subject matter of Claim 1. Accordingly, independent Claim 1 is allowable. Claim 2 depends from Claim 1, and is therefore allowable for at least the reasons set forth above with respect to Claim 1.

Independent Claim 6 calls for "a method of creating a field difference signal by subtracting video signals from different fields." The Examiner has referred to Col. 6, lines 10-17, which relate to Figure 5. Figure 5 clearly shows that the differences taken in Boie are taken between values within the same field. Referring to Figure 5, subtractors 521 and 522 are connected across single line delays 511 and 512, taking intra-field differences. Similarly, subtractors 523 and 524 also take intra-field differences. Subtractor 592 can also be seen to take an intra-field difference. Nowhere in Figure 5 are any subtractors arranged to take an inter-field difference.

For at least the reasons noted above, Boie does not teach or suggest the subject matter of Claim 6. Accordingly, independent Claim 6 is allowable. Claim 7 depends from Claim 6, and is therefore allowable for at least the reasons set forth above with respect to Claim 6.

Independent Claim 17 calls for "subtracting the signals to provide a field difference signal for at least one pair of adjacent input fields." As discussed above, Boie does not teach or suggest such an element. Rather, Boie discloses taking differences between values within the same field.

Independent Claim 17 also calls for "taking a weighted sum of contributions from one or more selected input fields ... and utilising the or each field difference signal to select input fields for interpolation." Boie does not teach or suggest such an element. The system in Boie takes

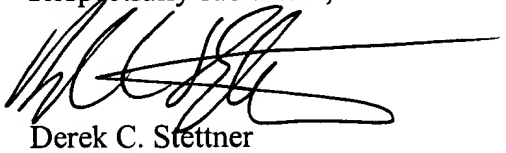
contributions from only the current field (Col 1, line 59). Boie, therefore does not teach adaptively varying the input fields, and in fact teaches directly against such a concept.

For at least the reasons noted above, Boie does not teach or suggest the subject matter of Claim 17. Accordingly, independent Claim 17 is allowable. Claim 18 depends from Claim 17, and is therefore allowable for at least the reasons set forth above with respect to Claim 17.

CONCLUSION

In view of the foregoing, entry of this paper and allowance of claims 1-13 and17-28 are respectfully requested. The undersigned is available for telephone consultation during normal business hours.

Respectfully submitted,



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